CLAIMS

What is claimed is:

1. An apparatus, comprising:

first and second optical paths, an optical beam to be directed through the first optical path;

an evanescent coupler including the first and second optical paths, the evanescent coupler evanescently coupling the first and second optical paths; and

a first reflector included in the evanescent coupler and integrated in the first and second optical paths such that the optical beam directed through the first optical path is reflected from the first reflector as the optical beam is concurrently evanescently coupled from the first to the second optical path.

2. The apparatus of claim 1 wherein the first reflector is defined at a plane of symmetry in a center of the evanescent coupler.

3. The apparatus of claim 1 wherein the first reflector is at a first end of the first optical path, the apparatus further comprising:

a second reflector at a second end of the optical path; and

a laser cavity including a gain medium defined between first and second reflectors.

4. The apparatus of claim 3 wherein the optical beam output from the output of the evanescent coupler has output spectrum that is similar to an intra-cavity spectrum of the optical beam directed through the laser cavity.

5. The apparatus of claim 3 wherein the first and second optical paths and the first reflector are disposed in semiconductor material.

6. The apparatus of claim 5 wherein the gain medium is disposed in the semiconductor material.

7. The apparatus of claim 5 wherein the laser cavity comprises a first optical waveguide disposed in the semiconductor material and the second optical path is included in a second optical waveguide disposed in the semiconductor material.

8. The apparatus of claim 7 further comprising a photonic device monolithically integrated in the semiconductor substrate and optically coupled to receive the optical beam from the second optical waveguide.

9. The apparatus of claim 3 wherein the first and second optical paths include optical fibers.

10. The apparatus of claim 5 wherein the semiconductor material comprises silicon.

11. The apparatus of claim 1 wherein the first reflector comprises a Bragg grating included in the evanescent coupler and integrated in the first and second optical paths.

12. A method comprising:

directing an optical beam along a first optical path;

reflecting the optical beam with a first reflector disposed in the first optical path; and

evanescently coupling the optical beam in conjunction with reflecting the optical beam from the first optical path into a second optical path, the first reflector integrated with an evanescent coupler including the first and second optical paths.

13. The method of claim 12 wherein reflecting the optical beam comprises reflecting the optical beam with the first reflector at a plane of symmetry in a center of the evanescent coupler.

14. The method of claim 12 further comprising:

stimulating emission of the optical beam from a gain medium included in the first optical path; and

reflecting the optical beam between first and second reflectors in a laser cavity defined between first and second reflectors so as to further stimulate emission of the optical beam in the laser cavity.

15. The method of claim 14 wherein the first reflector comprises a Bragg grating having a Bragg wavelength, wherein a center wavelength of the optical beam that is reflected between the first and second reflectors is substantially equal to the Bragg wavelength of the Bragg grating.

16. The method of claim 14 wherein evanescently coupling the optical beam in conjunction with reflecting the optical beam from the first optical path into the second optical path comprises directing the optical beam out from the laser cavity into an optical output of the evanescent coupler.

17. The method of claim 16 further comprising directing the optical beam reflected from the first reflector from the output of the evanescent coupler to an optical device disposed in semiconductor material, wherein the evanescent coupler including the first and second optical paths and the first reflector are also disposed in the semiconductor material.

18. A system, comprising:

a laser having a laser cavity including a gain medium defined between first and second reflectors and an evanescent output coupler optically coupled to the laser cavity, the evanescent output coupler including the first reflector integrated with the laser cavity and an output of the evanescent coupler such that an optical beam in the laser cavity is reflected from the first reflector as the optical beam is concurrently evanescently coupled to the output of the evanescent coupler; and

an optical receiver optically coupled to receive the optical beam from the output of the evanescent coupler.

19. The system of claim 18 wherein the first reflector comprises a Bragg grating.

20. The system of claim 18 wherein the first reflector is defined at a plane of symmetry in a center of the evanescent coupler.

21. The system of claim 18 wherein the evanescent coupler including the first reflector are disposed in semiconductor material.

22. The system of claim 21 further comprising an optical device optically coupled between the output of the evanescent coupler and the optical receiver.

23. The system of claim 22 wherein the optical device is disposed in the semiconductor material.

24. The system of claim 21 wherein the optical device comprises an optical modulator adapted to modulate the optical beam in response to a signal.

25. The system of claim 18 wherein the laser comprises a external cavity laser (ECL).

26. The system of claim 21 wherein the semiconductor material comprises silicon.